



**6712-01**

**FEDERAL COMMUNICATIONS COMMISSION**

**47 CFR part 90**

**[PS Docket No. 09-19; DA 14-508]**

**Audio Filtering Requirement for Travelers' Information Stations**

**AGENCY:** Federal Communications Commission.

**ACTION:** Request for Comments.

**SUMMARY:** In this document, the Commission seeks comment on a proposal filed by the National Association of Broadcasters (NAB) that would relax but not eliminate certain of the Commission's rules which require the filtering of Travelers' Information Stations (TIS) audio frequencies between 3 and 20 kHz.

**DATES:** Comments are due on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]** and reply comments are due on or before **[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

**ADDRESSES:** You may submit comments, identified by PS Docket No. 09-19 by any of the following methods:

- Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Federal Communications Commission's Web site: <http://fjallfoss.fcc.gov/ecfs2/>. Follow the instructions for submitting comments.
- Mail: Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.
- People with Disabilities: Contact the Commission to request reasonable accommodations (accessible format documents, sign language interpreters, CART, etc.) by e-

mail: FCC504@fcc.gov or phone: 202-418-0530 or TTY: 202-418-0432.

For detailed instructions for submitting comments and additional information on the rulemaking process, see the SUPPLEMENTARY INFORMATION section of this document.

Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.

U.S. Postal Service first-class, Express, and Priority mail should be addressed to 445 12<sup>th</sup> Street, SW, Washington DC 20554.

To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

**FOR FURTHER INFORMATION CONTACT:** Eric Ehrenreich, Policy and Licensing Division, Public Safety and Homeland Security Bureau, at (202) 418-1726 or [Eric.Ehrenreich@fcc.gov](mailto:Eric.Ehrenreich@fcc.gov).

**SUPPLEMENTARY INFORMATION:** This is a summary of the document in PS Docket No. 09-19, DA 14-508, released on April 16, 2014. This document is available to the public at [http://hraunfoss.fcc.gov/edocs\\_public/Query.do?numberFld=14-508&numberFld2=&docket=&dateFld=&docTitleDesc=](http://hraunfoss.fcc.gov/edocs_public/Query.do?numberFld=14-508&numberFld2=&docket=&dateFld=&docTitleDesc=).

## **Synopsis**

1. By this document we seek comment on a proposal filed by the National Association of Broadcasters (NAB) that would relax but not eliminate § 90.242(b)(8) of the Commission's rules, 47 CFR. 90.242(b)(8). This rule section requires the filtering of Travelers' Information Stations (TIS) audio frequencies between 3 and 20 kHz. NAB filed its proposal by way of reply comments to a Further Notice of Proposed Rulemaking (FNPRM), which proposed elimination of § 90.242(b)(8).

## **I. BACKGROUND**

2. Following the Commission's adoption of a 2010 Notice of Proposed Rulemaking (NPRM) that sought comment on various TIS issues, numerous commenters asserted that the TIS filtering requirement decreases the audibility of TIS broadcasts, especially at night and over difficult terrain. Because the filtering issue was not raised in the NPRM but rather was introduced for the first time by commenters in the record, the Commission sought further comment on the issue in the FNPRM, asking whether this requirement should be eliminated. The Commission received nine comments and four reply comments in response to the FNPRM. All commenters, save two, support elimination of the filtering requirement. In addition, many commenters, while supporting this elimination, oppose any mandates to require filter removal or to recertify TIS transmitters as a result of the filter removal.

3. The Society of Broadcast Engineers (SBE) and NAB submitted comments opposing removal of the TIS filtering restriction. SBE states that "[w]hile it is correct that removal of the filtering ... would improve the audio quality of a TIS transmission, this would be accomplished by a secondary spectrum user at the cost of harmful interference to adjacent channel AM Broadcast station reception."

4. Although NAB submitted comments opposing removal of the filtering requirement, it also noted that "a compromise approach may be workable." Specifically, NAB states that "a filter capable of filtering audio frequencies above 5 kHz should allow for a TIS signal of sufficiently higher quality, without impeding neighboring AM services." NAB notes that "full-power AM radio stations routinely use 5 kHz filters to address and prevent interference among AM stations, with few significant problems." NAB tempers its proposal by noting that SBE states that "broadcast engineers have observed that some TIS broadcasts contain musical content in the form of segues and other enhancements." NAB states that "[m]usical content requires wider bandwidth that may not be successfully dealt with by a 5 kHz filter." Thus, NAB

argues that “a 5 kHz filter may not be adequate if TIS stations continue broadcasting musical content contrary to Commission rules.” Accordingly, NAB “offers a proposal to allow TIS operators to use a 5 kHz filter, presuming TIS stations broadcast only voice content, as required under the Commission’s rules.”

5. AAIRO responds that it “can ... support the compromise proposed by the National Association of Broadcasters, ...” because “[t]he wider filter bandpass would markedly improve TIS voice transmissions and would also protect adjacent broadcasters should a TIS operator transmit non-voice material without authorization.” AAIRO further submits that if: a wider bandwidth filter may be substituted in place of the present 3-kHz filter ... the filter [should] be outboard to the TIS transmitter and immediately ahead of its audio input. The FCC should prescribe the exact formula for the audio filter and require its use by all TIS operations – new or existing – whose 3-kHz filters have been deactivated. AAIRO suggests the use of the same roll-off curve presently used in the 3-kHz filter, as it has proven to be adequate during the 30+ years of the TIS service’s existence. The use of an outboard filter will streamline the timeline to improve the service and dramatically lower costs for existing operators who would otherwise be required to purchase new transmitters or have their present transmitters modified and recertified.”

## **II. DISCUSSION**

6. We now seek comment on NAB’s proposal and related comments. Specifically, we seek more detailed comments with respect to the following issues:

7. Elimination Versus Relaxation of TIS Filtering Requirement. Rather than eliminate the TIS filtering requirement, as proposed in the FNPRM, is the public interest better served by NAB’s proposal, as endorsed by AAIRO, which would relax the filter requirement from 3 kHz to 5 kHz? Is NAB correct that “a filter capable of filtering audio frequencies above 5

kHz should allow for a TIS signal of sufficiently higher quality, without impeding neighboring AM services”? Or, would improved audio quality of a TIS transmission come at the cost of harmful interference to adjacent channel AM Broadcast station reception? On what basis should the Commission make this determination? Are there any compelling reasons why the Commission should not adopt the NAB proposal?

8. We also invite comment on any other measures that could both improve the intelligibility of TIS and provide adequate measures to protect adjacent channel stations from harmful interference. SBE contends that many TIS stations fail to adhere to generally accepted modulation standards employed by AM broadcasters, which could result in poor audio quality. In this regard, we seek comment on the state of licensee compliance with TIS modulation rules, and if compliance is lacking, how it could be improved. We also seek comment on whether and how the Commission could revise its TIS modulation rules as part of a solution to improve audio intelligibility and protect adjacent channel stations.

9. Revision of Operational Requirements. The current rule requires that at audio frequencies between 3 kHz and 20 kHz, the filter “shall have an attenuation greater than the attenuation at 1 kHz by at least:  $60 \log_{10}(f/3)$  decibels, where ‘f’ is the audio frequency in kHz.” At audio frequencies above 20 kHz, the attenuation shall be at least 50 decibels greater than the attenuation at 1 kHz. This produces a roll-off curve that starts at 0 dB attenuation for 3 kHz, then increases attenuation to approximately 50 dB at 20 kHz. AAIRO suggests that the Commission should use “the same roll-off curve presently used in the 3-kHz filter” for a 5-kHz filter. However, if we slide this curve up in frequency to have 0 dB attenuation at 5 kHz but maintain the same slope, then the curve would attenuate signals only by 36 dB at 20 kHz. We seek comment on whether 36 dB attenuation at 20 kHz would be sufficient or whether the roll-off curve for a 5 kHz audio filter in a TIS system should have 50 dB attenuation at 20 kHz, consistent with the existing rule.

10. Staff determined that a roll-off curve of  $83 \log_{10}(f/5)$  decibels for frequencies between 5 kHz and 20 kHz would have 0 dB attenuation at the 5-kHz starting point, and would achieve 50 dB attenuation at 20 kHz. However, this is a steeper roll-off curve than the formula prescribed in the current rule. We seek comment on whether the Commission should impose this attenuation if the Commission decides to relax the filtering requirement from 3 kHz to 5 kHz. We also seek comment on whether affordable audio filters exist in the marketplace that satisfy this roll-off curve, or whether equipment manufacturers could retrofit existing filters or economically design, manufacture, and market such filters in the near term. We also seek comment on the general availability of 5 kHz audio filters in the marketplace, the roll-off curves of specific models, and whether, alternatively, we should impose one of those roll-off curves in our rules.

11. Revision of Filter Placement Requirements. The current rule requires that “[e]ach transmitter in a Travelers Information Station shall be equipped with an audio low-pass filter [that] shall be installed between the modulation limiter and the modulated stage.” However, as noted above, AAIRO suggests that “the [replacement] filter [should] be outboard to the TIS transmitter and immediately ahead of its audio input.” Given this difference in the placement of the filter, we seek comment on the feasibility of AAIRO’s suggestion and whether to require such configuration in our rules in the event that the Commission relaxes the filter requirement.

12. Certification. As indicated above, many commenters who support elimination of the filtering requirement also request that no recertification requirement accompany such change. Accordingly, we seek comment on whether audio filter elimination/replacement and AAIRO’s foregoing suggestion regarding filter placement would either: (1) constitute a change to TIS transmitters that requires recertification; (2) constitute a permissive change in certificated equipment that does not require recertification; or (3) be exempt from the Commission’s equipment authorization rules. Commenters should provide evidence to support their arguments.

13. Should Any Change in the Filtering Requirement be Mandatory? Finally, whether the Commission either relaxes or eliminates the TIS filtering requirement, should it also require filter replacement or removal, respectively, for existing licensees? Many commenters who support elimination of the filtering requirement also request that such elimination be made optional, at the discretion of individual licensees. To what extent, if any, would such a requirement present an undue financial burden? Is AAIRO correct that a mandatory replacement or removal requirement would likely cause most TIS Services to cease operation due to expense and logistics? On the other hand, are there compelling counter-reasons, to require filter removal or replacement rather than leave it to the discretion of TIS licensees?

### **III. PROCEDURAL MATTERS**

#### **A. Ex Parte Presentations**

14. This proceeding has been designated as a “permit-but-disclose” proceeding in accordance with the Commission’s ex parte rules. 47 CFR 1.1200 et seq. Persons making ex parte presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral ex parte presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the ex parte presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter’s written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during ex parte meetings are deemed to be written ex parte presentations and

must be filed consistent with § 1.1206(b). In proceedings governed by § 1.49(f) or for which the Commission has made available a method of electronic filing, written ex parte presentations and memoranda summarizing oral ex parte presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's ex parte rules.

## **B. Comment Filing Procedures**

15. Interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Interested parties may file comments using: (1) the Commission's Electronic Comment Filing System (ECFS), or (2) by filing paper copies. See Electronic Filing of Documents in Rulemaking Proceedings, 63 FR 24121 (1998). **Commenters should refer to docket number 09-19 when filing comments.**

16. Electronic Filers: Interested parties may file comments electronically using the Internet by accessing the ECFS: <http://apps.fcc.gov/ecfs2>.

17. Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

18. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

19. All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th Street, SW, Room TW-A325,



Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.

20. Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.

21. U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12<sup>th</sup> Street, SW, Washington DC 20554.

22. People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

23. Interested parties may view documents filed in this proceeding on the Commission's Electronic Comment Filing System (ECFS) using the following steps: (1) Access ECFS at <http://apps.fcc.gov/ecfs>. (2) In the introductory screen, click on "Search for Filings." (3) In the "Proceeding Number" box, enter the numerals in the docket number. (4) Click on the box marked "Search for Comments." A link to each document is provided in the document list. The public may inspect and copy filings and comments during regular business hours at the FCC Reference Information Center, 445 12th Street, SW, Room CY-A257, Washington, DC 20554. The public may also purchase filings and comments from the Commission's duplicating contractor, Best Copy and Printing, Inc., Portals II, 445 12th Street, SW, Room CY-B402, Washington, DC 20554, telephone 1-800-378-3160, or via e-mail to [fcc@bcpiweb.com](mailto:fcc@bcpiweb.com). The public may also download this Public Notice from the Commission's web site at <http://www.fcc.gov/>.

**FEDERAL COMMUNICATIONS COMMISSION.**

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